

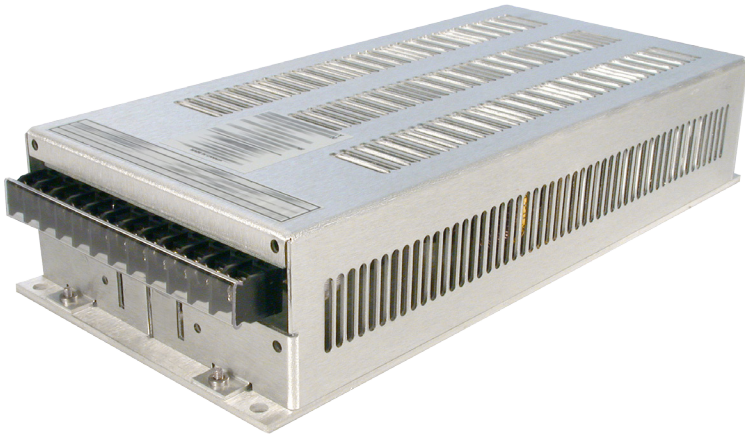


ANALYTIC SYSTEMS

Power Conversion Solutions

AC/AC FREQUENCY CONVERTERS

**MODEL
FCA250**



Description

This rugged AC/AC frequency converter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. It is a mature design with a track record in numerous applications. The AC/DC input stage converts the input voltage to a DC voltage, which feeds the DC/AC inverter to generate the required AC output. The use of high frequency conversion enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise. Cooling is via base plate to a heat sinking surface and by natural convection. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Design Features

- Convection cooled
- Compact size, light weight
- Sinusoidal wave shape
- 250VA of output power
- Full electronic protection
- Telecom quality
- Field-proven design topology

Applications

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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www.analyticsystems.com

AC/AC FREQUENCY CONVERTERS

MODEL FCA250

Input

Input Voltage	115 or 230 VAC, 410 Hz +/- 20% are standard (other inputs available upon request)
Input Protection	Internal safety fuse Inrush current limiting Varistor Lower voltage than specified minimum input will not damage unit
Isolation	2250 Vdc input to ground 2250 Vdc input to output 2250 Vdc output to chassis
Standards	Designed to meet EN60950-1 and related standards
EMI	EN 55022 Class A as a minimum

Output

Output Voltage	115V / 60Hz / 2.2A or 115V / 400Hz / 2.2A or 230V / 50Hz / 1.1A continuous with grounded neutral Isolated floating output optional
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line/Load Regulation	± 2% from no load to full load
Load Crest Factor	Maximum 3.0 at 90% load
Output Noise	High frequency ripple is less than 500mV rms (20MHz BW)
Output Overload Protection	Current limiting with short circuit protection. At approximately 300VA unit enter cycling (hiccup) mode. Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	140Vac by internal supply voltage limiting
Efficiency	Min 80% at full load

Environmental Specifications

Operating Temperature Range	0°C to +50°C
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Conduction/convection
Environmental Protection	Basic ruggedizing, Conformal coating
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	110,000 hours @ 45°C
Indicators	output ON LED
Control Input	None
Alarm Output	None

Mechanical Specifications

Package / Dimensions (W x H x L)	F3: 132 x 64 x 300mm (5.2" x 2.5" x 11.8"). Mounting holes are clear
Weight	2kg (4.4lbs)
Connections	12-pole barrier-type terminal block, 3/8" spacing. Snap-on cover included.
Warranty	3 years

Note: Specifications are subject to change without notice.



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